

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 14FP2026
Sub. Name : PLANTATION PRODUCTS & SPICES TECHNOLOGY

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Elaborate on the steps involved in the Instant tea production	CO1	10
	b.	What is Decaffeination? Explain the steps involved in the process of decaffeination of coffee.	CO2	10
(OR)				
2.	a.	What are the biochemical changes occur during withering of tea?	CO1	6
	b.	Elaborate on the steps involved in the Instant tea production	CO1	8
	c.	Explain the Grades and their synonyms for Indian black tea	CO3	6
3.	a.	Explain the process and equipments used during roasting of coffee in detail.	CO2	10
	b.	With a neat flow chart, describe the manufacture of green tea in detail	CO1	10
(OR)				
4.	a.	What is the significant of dutching in cocoa bean processing?	CO1	4
	b.	Illustrate the steps involved in cocoa bean processing with a neat flow diagram.	CO1	8
	c.	Describe the changes that takes place during fermentation of cocoa bean	CO1	8
5.	a.	Illustrate the flavor synthesis during chocolate manufacture and mention the importance of quality and defects.	CO1	10
	b.	With a block diagram, describe the process and technology of chocolate production	CO1	10
(OR)				
6.	a.	How will you produce microencapsulated pepper?	CO3	4
	b.	With a neat sketch explain the drying process and working principle of dryers used in drying of cocoa	CO1	8
	c.	Describe the significance of particle size distribution in chocolate manufacture	CO1	8
7.	a.	Explain the quality issues of dehydrated garlic and its adulteration	CO2	10
	b.	Explain the processing steps involved in primary and secondary products of ginger	CO1	10
(OR)				
8.	a.	Give a note on curing process of vanilla beans	CO1	4
	b.	Describe the post harvest technology and quality specifications of ginger.	CO1	8
	c.	Explain the quality specifications and chemical composition of turmeric	CO1	8
<u>Compulsory:</u>				
9.	a.	Discuss in detail on the production process of quills, oil and oleoresin of cinnamon.	CO1	10
	b.	Elaborate on the steps involved in the garlic dehydration process with flowchart	CO2	10

ALL THE BEST